Supplemental Instructions

Models:

W24G4D W30G4D W36G4D W42G4D W48G4D W60G4D

This model provides a unique dehumidification circuit for periods of low outdoor ambient temperature and high indoor humidity conditions.

Refer to Specification Sheet S3588 for the standard features of the base units and this manual for electrical data.

Dehumidification Circuit

The dehumidification refrigerant reheat circuit is controlled by a dehumidification valve directing the refrigerant gas to the normal condenser during periods when standard air conditioning is required. During periods of high indoor humidity, a humidistat senses the need for mechanical dehumidification. It then energizes both the compressor circuit and the dehumidification valve, thus directing the hot refrigerant discharge gas into a separate desuperheating condenser circuit, which reheats the conditioned air before it is delivered to the room. The refrigerant gas is then routed from the desuperheating condenser to the system condenser for further heat transfer. When the humidistat is satisfied, the system automatically switches back to normal A/C mode and either continues to operate or turns off based on the signal from the wall thermostat. The result is separate humidity control at minimum operating cost.

See Figure 1 on page 2.

Dehumidification Sequence of Operation

Dehumidification is controlled through the thermostat (if capable) or through a separate humidistat. On a call for dehumidification mode of operation, the compressor and dehumidification valve of the unit are energized through circuit R - D to provide dehumidification. Dehumidification will continue until the humidistat is satisfied.

Any time there is a call for circuit R - Y1, the dehumidification mode will cancel and the system will return to cooling operation.

Balanced Climate™ Mode

It is recommended to enable Balanced Climate mode and utilize a 2-stage thermostat to enhance the dehumidification performance and comfort.

NOTE: *To activate this mode, the jumper between Y1 and Y2 on the low voltage terminal strip needs to be removed.*

In units with an economizer vent, balance climate mode should not be used. The Y1 and Y2 jumper must remain installed.

This mode will allow the indoor blower to run at a reduced airflow on the first stage of cooling. A 2-stage thermostat connected to Y2 will then allow the airflow to return to normal rated speed if the call for dehumidification or cooling is not satisfied within the allotted time frame specified by the thermostat. See latest revision of unit installation instructions 2100-

Bard® SINCE 1914
Climate Control Solutions

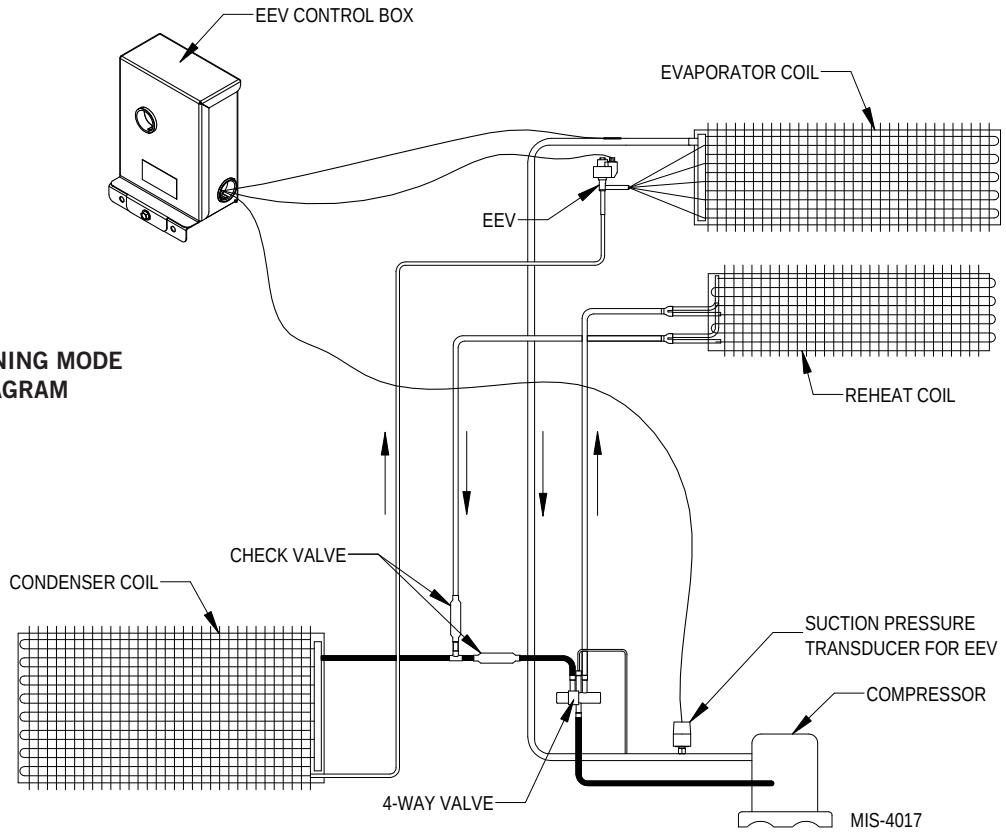
Bard Manufacturing Company, Inc.
Bryan, Ohio 43506

www.bardhvac.com

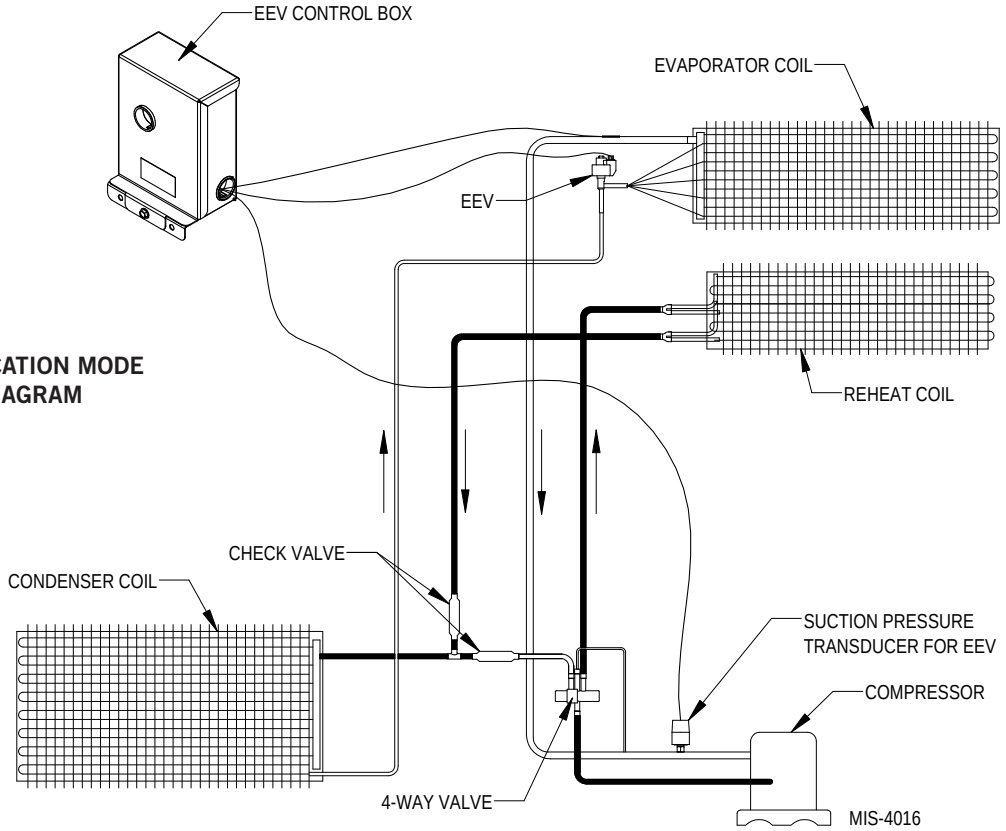
Manual: 7960-867C
Supersedes: 7960-867B
Date: 11-30-20

FIGURE 1
Circuit Diagrams

AIR CONDITIONING MODE CIRCUIT DIAGRAM



DEHUMIDIFICATION MODE CIRCUIT DIAGRAM



721 for more information regarding the Balanced Climate operation.

Electronic Expansion Valve

Operation

This model employs an electronic expansion valve (EEV) which meters the refrigerant to the evaporator. The EEV is made of a stepper motor that is controlled with a step output from the controller. The valve is capable of 480 steps which drives a needle valve that in turn regulates the flow of refrigerant. The EEV allows for tighter control and better capacity management in varying operating conditions than a standard TXV. The EEV system consists of the electronic valve and stator, control board, relay, suction temperature sensor and suction pressure transducer. The pressure transducer and temperature sensor monitor the suction line to provide real time data to the control board so that a real time superheat can be calculated. This then determines the EEV position. The controller is sent to maintain around 13° superheat. The relay is used to activate the EEV system's controller anytime that the compressor is energized.

WARNING/AVERTISSEMENT

- Exposure to high pressure refrigerant hazard.
- This unit is equipped with an electronic expansion valve. In order to fully recover refrigerant or evacuate the system during repairs, be sure to use service tool 2151-021 to manually open the electronic expansion valve or be sure to recover and evacuate from all service ports; suction, liquid, and discharge.
- Failure to do so could result in eye injuries and/or refrigerant burns.

- Exposition à un risque de réfrigérant à haute pression.
- Cet appareil est équipé d'un détendeur électronique. Afini de récupérer complètement le réfrigérant ou d'évacuer le système pendant les réparations, assurez-vous d'utiliser l'outil de service 2151-021 pour ouvrir manuellement le détendeur électronique ou assurrez-vous de récupérer et d'évacuer de tous les ports de service: aspiration, liquide et refoulement.
- Ne pas le faire pourrait entraîner des blessures auz yeux et / ou des brûlures de réfrigérant.

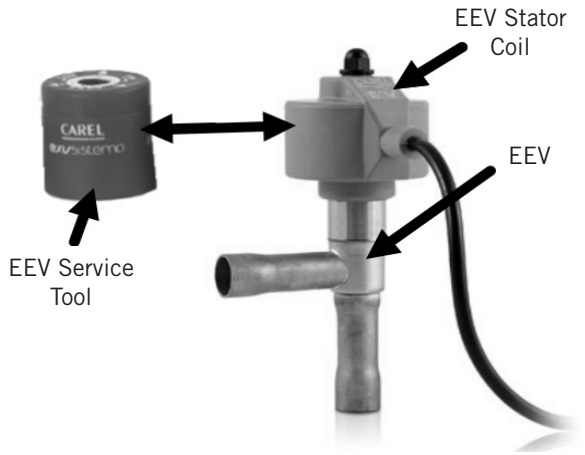
7961-953

EEV Instructions for Vacuuming, Reclaiming and Charging Unit

The electronic expansion valve moves to a closed position when there is no call to control. In order to pull a complete vacuum, fully reclaim the system or charge the unit, connections to both the suction and discharge service ports need to be utilized or the valve needs to be manually opened first. The valve can be opened manually using the magnetic EEV service tool (Bard Part # 2151-021) shown in Figure 2. To do this, remove the EEV stator coil (red color with retaining nut on top), slide the magnetic tool over the shaft where the stator was removed and turn in a clockwise direction to open the valve to the full open position (directional arrows are provided on the tool).

Reapply the EEV stator coil and retaining nut once complete. Upon powering the unit back up, the control board will automatically drive the EEV back to the fully shut position. Once the compressor starts, the control board will again modulate the EEV position to control the system superheat.

FIGURE 2
Electronic Expansion Valve (EEV) and Service Tool



Troubleshooting the Electronic Expansion Valve

The control board has two status LEDs.

- The green LED should be lit anytime that the board has power and the control is functioning.
- The red LED is to show that an alarm is present.

See Table 1 on page 4 for a guide to know where to start troubleshooting the EEV. Refer to the appropriate unit replacement parts manual for any parts that are needed.

Control Board

Check that the controller is getting 24VAC signal (GO 24VAC Hot and G 24VAC common). Reference unit wiring diagram for proper connections. If 24V is present but the green LED is not lit, replace the controller. If the green LED is now lit but the superheat is still not being maintained, troubleshoot the relay to check that the DI is connected to G; refer to ***Relay in EEV Control Box*** below.

Electronic Expansion Valve

Check to see if valve can be moved by manually moving the stepper motor using the EEV service tool shown in Figure 1 (Bard Part # 2151-021). If valve still does not control, check the transducer and thermistor sensors as described on page 5. If sensors are good, replace the valve.

Relay in EEV Control Box

Contacts NO to DI and COM to G must be closed for EEV control to start controlling superheat. Check that the relay is getting 24VAC. Reference unit wiring diagram for proper connections. If 24V is present, measure the resistance between COM and NO; it

TABLE 1
Electronic Expansion Valve Troubleshooting

Problem	Probable Cause	Troubleshoot
The green LED is not lit.	Controller not receiving 24VAC signal.	Control Board
The green LED is lit, but superheat is not being maintained.	The relay is not closing the controller's DI connection to ground.	Relay
The red LED is flashing and EEV is not controlling superheat properly (13° superheat). One of the following is likely the fault:		
1. Low superheat is detected and the controller is taking steps to protect the system by closing the valve.	Stator is broken or connected incorrectly.	Stator
	Valve is stuck open.	EEV Valve
2. Suction temperature sensor error.	Poor connection of sensor or faulty sensor.	Thermistor
3. Suction pressure transducer error.	Pressure transducer wiring incorrect or faulty transducer.	Transducer
The red LED is on steady.	The operating parameters have been damaged.	Replace Control Board

should be 0 ohms when the relay is getting 24V. If the resistance is out of range, replace the relay.

Stator Coil

Disconnect the stator from the valve and the control and measure the resistance of the windings using an electrical tester. The resistance of both windings should be around 40 ohms +/– 10%. The four wire sets that will have resistance between them are: White and red, green and red, yellow and purple, blue and purple. If the resistance falls outside these values, replace the stator.

Transducer Sensor

1. Check continuity of all three wires from transducer plug to controller plug. Replace wires if poor connection in any wire.
2. Check to ensure wires are correctly connected as follows:

   Blue wire = pin 1 of controller plug to pin C on transducer plug

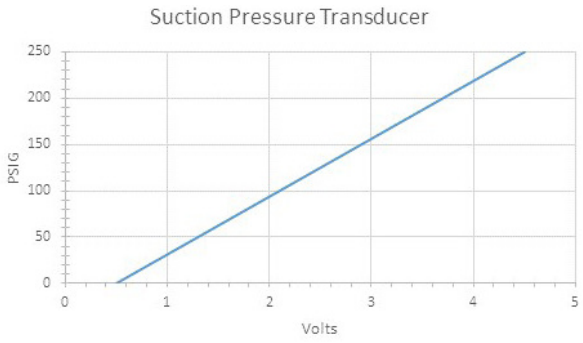
   Red wire = pin 2 of controller plug to pin B on transducer plug

   Black wire = pin 3 of controller plug to pin A on transducer plug
3. Check that there is 5VDC Nominal between the red and black wires going to the transducer.
4. Check the signal voltage between the blue and black wires (0.5-4.5VDC Actual). The following formula and Figure 3 can be used to determine if the transducer's voltage to pressure ratio is within range. Replace transducer if out of range.

Formula for Tech:

(Measured Pressure x .016) + .5 =
Expected Transducer Signal Voltage (see Figure 3)

FIGURE 3
Voltage to Pressure: Suction Pressure Transducer



Thermistor Sensor

1. Make a visual check for broken wire insulation, broken wires or cracked epoxy material.
2. Disconnect 10k ohm NTC thermistor from the EEV control box.
3. Use an ohmmeter to measure the resistance between the two connectors. Also use ohmmeter to check for short or open.
4. Compare the resistance reading to Table 2. Use sensor ambient temperature. (Tolerance of part is ±10 %.)
5. If sensor is out of tolerance, shorted, open or reads very low ohms, it should be replaced.

TABLE 2
10K Ohm NTC Sensor: Temperature/Resistance

Temperature		Resistance	Temperature		Resistance	Temperature		Resistance	Temperature		Resistance
F	C	Ω	F	C	Ω	F	C	Ω	F	C	Ω
-40	-40	188,500	28.4	-2	29,730	96.8	36	6,700	165.2	74	1,980
-38.2	-39	178,500	30.2	-1	28,480	98.6	37	6,470	167	75	1,920
-36.4	-38	169,000	32	0	27,280	100.4	38	6,250	168.8	76	1,870
-34.6	-37	160,200	33.8	1	26,130	102.2	39	6,030	170.6	77	1,820
-32.8	-36	151,900	35.6	2	25,030	104	40	5,830	172.4	78	1,770
-31	-35	144,100	37.4	3	23,990	105.8	41	5,630	174.2	79	1,920
-29.2	-34	136,700	39.2	4	23,000	107.6	42	5,440	176	80	1,670
-27.4	-33	129,800	41	5	22,050	109.4	43	5,260	177.8	81	1,620
-25.6	-32	123,300	42.8	6	21,150	111.2	44	5,080	179.6	82	1,580
-23.8	-31	117,100	44.6	7	20,300	113	45	4,910	181.4	83	1,530
-22	-30	111,300	46.4	8	19,480	114.8	46	4,750	183.2	84	1,490
-20.2	-29	105,700	48.2	9	18,700	116.6	47	4,590	185	85	1,450
-18.4	-28	100,500	50	10	17,960	118.4	48	4,440	186.8	86	1,441
-16.6	-27	95,520	51.8	11	17,240	120.2	49	4,300	188.6	87	1,370
-14.8	-26	90,840	53.6	12	16,560	122	50	4,160	190.4	88	1,340
-13	-25	86,430	55.4	13	15,900	123.8	51	4,030	192.2	89	1,300
-11.2	-24	82,260	57.2	14	15,280	125.6	52	3,900	194	90	1,270
-9.4	-23	78,330	59	15	14,690	127.4	53	3,770	195.8	91	1,230
-7.6	-22	74,610	60.8	16	14,120	129.2	54	3,650	197.6	92	1,200
-5.8	-21	71,100	62.6	17	13,580	131	55	3,540	199.4	93	1,170
-4	-20	67,770	64.4	18	13,060	132.8	56	3,430	201.2	94	1,140
-2.2	-19	64,570	66.2	19	12,560	134.6	57	3,320	203	95	1,110
-0.4	-18	61,540	68	20	12,090	136.4	58	3,220	204.8	96	1,080
1.4	-17	58,680	69.8	21	11,630	138.2	59	3,120	206.6	97	1,050
3.2	-16	55,970	71.6	22	11,200	140	60	3,020	208.4	98	1,020
5	-15	53,410	73.4	23	10,780	141.8	61	2,930	210.2	99	1,000
6.8	-14	50,980	75.2	24	10,380	143.6	62	2,840	212	100	970
8.6	-13	48,680	77	25	10,000	145.4	63	2,750			
10.4	-12	46,500	78.8	26	9,630	147.2	64	2,670			
12.2	-11	44,430	80.6	27	9,280	149	65	2,590			
14	-10	42,470	82.4	28	8,940	150.8	66	2,510			
15.8	-9	40,570	84.2	29	8,620	152.6	67	2,440			
17.6	-8	38,770	86	30	8,310	154.4	68	2,360			
19.4	-7	37,060	87.8	31	8,010	156.2	69	2,300			
21.2	-6	35,440	89.6	32	7,730	158	70	2,230			
23	-5	33,900	91.4	33	7,450	159.8	71	2,160			
24.8	-4	32,440	93.2	34	7,190	161.6	72	2,100			
26.6	-3	31,050	95	35	6,940	163.4	73	2,040			

W24G4D Cooling and Dehumidification Application Data[1]

DB/WB[2]	OD Temp.	65°F[3]		70°F		75°F		80°F		85°F		90°F		95°F		100°F		105°F	
	Mode	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum
75/62.5 (50% RH)	Total Cooling Btuh	26,700	13,300	26,100	11,500	25,500	10,300	24,700	7,900	23,900	6,000	23,100	4,000	22,200	2,000	21,200		20,100	
	Sensible Btuh	19,700	5,700	19,400	4,300	19,700	3,300	18,800	1,400	18,400	-	18,000	(1,500)	17,600	(3,000)	17,100	(4,400)	16,700	(6,000)
	S/T	0.738	0.429	0.743	0.374	0.773	0.320	0.761	0.177	0.770	0.000	0.779	0	0.793	0	0.807	0	0.831	0
	Latent Btuh	7,000	7,600	6,700	7,200	5,800	7,000	5,900	6,500	5,500	6,000	5,100	5,500	4,600	5,000	4,100	4,300	3,400	3,800
	Lbs. H20/hr.	6.6	7.2	6.3	6.8	5.5	6.6	5.6	6.1	5.2	5.7	4.8	5.2	4.3	4.7	3.9	4.1	3.2	3.6
	Supply Air DB	52.5	66.5	52.8	68.6	53.1	70.2	53.5	72.9	53.9	75.0	54.3	77.2	54.9	79.5	55.4	81.7	56.0	83.9
	Supply Air WB	51.1	55.6	51.4	56.6	51.6	57.0	51.9	58.6	52.3	59.6	52.7	60.6	53.1	61.7	53.5	62.7	54.0	63.8
	Suction PSIG[4]	123	116	124	118	124	119	126	121	127	123	128	125	130	127	131	128	133	130
	Discharge PSIG[4]	273	240	292	253	308	263	333	282	356	298	379	314	404	331	430	348	457	367
75/64.1 (55% RH)	Total Cooling Btuh	27,500	14,100	26,900	12,400	26,200	10,600	25,500	8,700	24,700	6,800	23,900	4,900	23,000	2,900	22,000	800	20,900	
	Sensible Btuh	18,700	5,100	18,400	3,700	18,100	2,300	17,800	800	17,400	(600)	17,000	(2,100)	16,600	(3,600)	16,100	(5,100)	15,700	(6,600)
	S/T	0.680	0.36	0.684	0.30	0.691	0.22	0.698	0.09	0.704	0	0.711	0	0.722	0	0.732	0	0.751	0
	Latent Btuh	8,800	9,000	8,500	8,700	8,100	8,300	7,700	7,900	7,300	7,400	6,900	7,000	6,400	6,500	5,900	5,900	5,200	5,300
	Lbs. H20/hr.	8.3	8.5	8.0	8.2	7.6	7.8	7.3	7.5	6.9	7.0	6.5	6.6	6.0	6.1	5.6	5.6	4.9	5.0
	Supply Air DB	53.6	67.3	53.9	69.5	54.3	71.6	54.6	73.8	55.0	75.9	55.5	78.1	56.0	80.4	56.6	82.6	57.2	84.8
	Supply Air WB	52.5	56.7	52.8	57.7	53.0	58.7	53.3	59.7	53.7	60.7	54.1	61.8	54.5	62.8	55.0	63.8	55.5	64.9
	Suction PSIG[4]	125	119	126	120	127	122	129	124	130	126	131	127	133	129	134	131	135	133
	Discharge PSIG[4]	273	240	292	254	312	268	334	283	356	299	380	315	404	332	430	349	457	367
75/65.5 (60% RH)	Total Cooling Btuh	28,300	15,000	27,700	13,200	27,100	12,000	26,300	9,600	25,500	7,700	24,700	5,700	23,800	3,700	22,800	1,600	21,700	
	Sensible Btuh	17,700	4,500	17,400	3,100	17,700	2,100	16,800	200	16,400	(1,200)	16,000	(2,700)	15,600	(4,200)	15,100	(5,700)	14,700	(7,200)
	S/T	0.625	0.300	0.628	0.235	0.653	0.175	0.639	0.021	0.643	0	0.648	0	0.655	0	0.662	0	0.677	0
	Latent Btuh	10,600	10,500	10,300	10,100	9,400	9,900	9,500	9,400	9,100	8,900	8,700	8,400	8,200	7,900	7,700	7,300	7,000	6,700
	Lbs. H20/hr.	10.0	9.9	9.7	9.5	8.9	9.3	9.0	8.9	8.6	8.4	8.2	7.9	7.7	7.5	7.3	6.9	6.6	6.3
	Supply Air DB	54.8	68.2	55.1	70.4	55.4	72.0	55.8	74.7	56.2	76.8	56.7	79.0	57.2	81.3	57.7	83.5	58.3	85.7
	Supply Air WB	53.9	57.8	54.2	58.8	54.4	59.3	54.7	60.8	55.1	61.8	55.5	62.9	55.9	63.9	56.4	64.9	56.9	66.0
	Suction PSIG[4]	128	121	129	123	129	124	131	126	133	128	134	130	135	132	137	134	138	135
	Discharge PSIG[4]	274	241	293	255	309	265	334	284	356	299	380	316	405	332	431	350	458	368
75/66.7 (65% RH)	Total Cooling Btuh	29,100	15,800	28,500	14,100	27,900	12,800	27,100	10,400	26,300	8,500	25,500	6,600	24,500	4,500	23,600	2,500	22,500	400
	Sensible Btuh	16,700	3,900	16,400	2,500	16,700	1,500	15,800	(400)	15,400	(1,800)	15,000	(3,300)	14,600	(4,800)	14,100	(6,300)	13,700	(7,800)
	S/T	0.574	0.25	0.575	0.18	0.599	0.12	0.583	0	0.586	0	0.588	0	0.596	0	0.597	0	0.609	0
	Latent Btuh	12,400	11,900	12,100	11,600	11,200	11,300	11,300	10,800	10,900	10,300	10,500	9,900	9,900	9,300	9,500	8,800	8,800	8,200
	Lbs. H20/hr.	11.7	11.2	11.4	10.9	10.6	10.7	10.7	10.2	10.3	9.7	9.9	9.3	9.3	8.8	9.0	8.3	8.3	7.7
	Supply Air DB	56.0	69.1	56.3	71.3	56.6	72.8	57.0	75.6	57.4	77.7	57.8	79.9	58.3	82.1	58.9	84.4	59.5	86.6
	Supply Air WB	55.3	58.9	55.6	59.9	55.8	60.4	56.1	61.9	56.5	63.0	56.9	64.0	57.3	65.0	57.8	66.1	58.3	67.1
	Suction PSIG[4]	131	124	132	126	132	127	134	129	135	131	137	133	138	134	140	136	141	138
	Discharge PSIG[4]	274	242	293	256	309	265	334	285	357	300	380	316	405	333	431	351	458	369
75/68 (70% RH)	Total Cooling Btuh	29,800	16,700	29,300	14,900	28,700	13,700	27,900	11,300	27,100	9,400	26,200	7,400	25,300	5,400	24,300	3,300	23,300	1,200
	Sensible Btuh	15,700	3,300	15,400	1,900	15,700	900	14,800	(1,000)	14,400	(2,400)	14,000	(3,900)	13,600	(5,400)	13,200	(6,900)	12,700	(8,400)
	S/T	0.527	0.198	0.526	0.128	0.547	0.066	0.530	0	0.531	0	0.534	0	0.538	0	0.543	0	0.545	0
	Latent Btuh	14,100	13,400	13,900	13,000	13,000	12,800	13,100	12,300	12,700	11,800	12,200	11,300	11,700	10,800	11,100	10,200	10,600	9,600
	Lbs. H20/hr.	13.3	12.6	13.1	12.3	12.3	12.1	12.4	11.6	12.0	11.1	11.5	10.7	11.0	10.2	10.5	9.6	10.0	9.1
	Supply Air DB	57.1	70.0	57.4	72.2	57.7	73.7	58.1	76.5	58.5	78.6	59.0	80.8	59.5	83.0	60.1	85.3	60.7	87.5
	Supply Air WB	56.8	60.0	57.0	61.0	57.2	61.5	57.6	63.0	57.9	64.1	58.3	65.1	58.7	66.1	59.2	67.2	59.7	68.2
	Suction PSIG[4]	134	126	135	128	135	130	137	132	138	133	140	135	141	137	142	139	144	141
	Discharge PSIG[4]	274	243	293	256	309	266	334	285	357	301	380	317	405	334	431	352	458	370
80/68.3 (55% RH)	Total Cooling Btuh	30,000	16,700	29,400	15,000	28,800	13,700	28,100	11,300	27,300	9,400	26,400	7,400	25,500	5,400	24,500	3,400	23,500	1,200
	Sensible Btuh	19,000	5,900	18,700	4,500	18,900	3,500	18,000	1,600	17,600	200	17,200	(1,300)	16,800	(2,800)	16,400	(4,300)	15,900	(5,800)
	S/T	0.633	0.35	0.636	0.30	0.656	0.26	0.641	0.14	0.645	0.02	0.652	0	0.659	0	0.669	0	0.677	0
	Latent Btuh	11,000	10,800	10,700	10,500	9,900	10,200	10,100	9,700	9,700	9,200	9,200	8,700	8,700	8,200	8,100	7,700	7,600	7,000
	Lbs. H20/hr.	10.4	10.2	10.1	9.9	9.3	9.6	9.5	9.2	9.2	8.7	8.7	8.2	8.2	7.7	7.6	7.3	7.2	6.6
	Supply Air DB	58.0	71.0	58.2	73.2	58.6	74.7	58.9	77.5	59.4	79.6	59.8	81.8	60.3	84.0	60.9	86.3	61.5	88.5
	Supply Air WB	56.8	60.2	57.0	61.2	57.2	61.7	57.6	63.3	57.9	64.3	58.3	65.3	58.7	66.4	59.2	67.4	59.7	68.5
	Suction PSIG[4]	136	127	137	129	137	131	139	133	140	134	141	136	143	138	144	140	146	142
	Discharge PSIG[4]	278	247	297	260	313	270	338	289	360	305	384	321	409	338	435	356	462	374

1 Values listed are with ventilation package disabled
2 Return air temperature °F @ Rated CFM
3 Below 50°F, unit requires a factory or field installed low ambient control.
4 Suction pressure +/- 4 psi, Discharge pressure +/- 10 psi

W30G4D Cooling and Dehumidification Application Data[1]

DB/WB[2]	OD Temp.	65°F[3]		70°F		75°F		80°F		85°F		90°F		95°F		100°F		105°F	
	Mode	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum
75/62.5 (50% RH)	Total Cooling Btuh	31,800	15,400	30,800	13,400	29,900	10,900	29,000	9,200	28,100	7,100	27,100	4,900	26,200	2,600	25,200	300	24,200	
	Sensible Btuh	22,800	6,500	22,300	4,800	21,800	3,300	21,300	1,600	20,800	(100)	20,300	(1,700)	19,800	(3,300)	19,400	(4,900)	18,900	(6,500)
	S/T	0.717	0.422	0.724	0.358	0.729	0.303	0.734	0.174	0.740	0	0.749	0	0.756	0	0.770	0	0.781	0
	Latent Btuh	9,000	8,900	8,500	8,600	8,100	7,600	7,700	7,600	7,300	7,200	6,800	6,600	6,400	5,900	5,800	5,200	5,300	4,500
	Lbs. H20/hr.	8.5	8.4	8.0	8.1	7.6	7.2	7.3	7.2	6.9	6.8	6.4	6.2	6.0	5.6	5.5	4.9	5.0	4.2
	Supply Air DB	52.2	66.6	52.7	68.7	53.2	70.8	53.7	73.0	54.2	75.1	54.7	77.2	55.2	79.3	55.6	81.4	56.1	83.5
	Supply Air WB	50.5	55.4	50.9	56.4	51.1	57.4	51.7	58.4	52.0	59.5	52.4	60.5	52.8	61.5	53.2	62.5	53.6	63.6
	Suction PSIG[4]	123	115	124	116	124	118	125	119	127	121	128	123	129	125	130	127	132	130
	Discharge PSIG[4]	264	238	283	251	307	265	324	280	346	296	370	312	394	329	420	347	447	366
75/64.1 (55% RH)	Total Cooling Btuh	32,600	16,500	31,700	14,400	30,800	12,400	29,900	10,200	28,900	8,100	28,000	5,900	27,000	3,600	26,000	1,400	25,100	
	Sensible Btuh	21,700	5,800	21,200	4,100	20,700	2,500	20,200	900	19,700	(700)	19,200	(2,400)	18,700	(4,000)	18,200	(5,600)	17,800	(7,100)
	S/T	0.666	0.35	0.669	0.28	0.672	0.20	0.676	0.09	0.682	0	0.686	0	0.693	0	0.700	0	0.709	0
	Latent Btuh	10,900	10,700	10,500	10,300	10,100	9,900	9,700	9,300	9,200	8,800	8,800	8,300	8,300	7,600	7,800	7,000	7,300	6,100
	Lbs. H20/hr.	10.3	10.1	9.9	9.7	9.5	9.3	9.2	8.8	8.7	8.3	8.3	7.8	7.8	7.2	7.4	6.6	6.9	5.8
	Supply Air DB	53.2	67.4	53.8	69.6	54.3	71.7	54.8	73.9	55.3	76.0	55.8	78.1	56.2	80.2	56.7	82.3	57.1	84.3
	Supply Air WB	51.9	56.4	52.2	57.5	52.6	58.5	53.0	59.5	53.4	60.5	53.8	61.5	54.1	62.6	54.5	63.6	54.9	64.6
	Suction PSIG[4]	126	118	127	119	128	121	129	122	130	124	131	126	132	128	134	131	135	133
	Discharge PSIG[4]	266	241	284	254	304	268	326	283	348	299	372	315	396	332	422	350	449	368
75/65.5 (60% RH)	Total Cooling Btuh	33,500	17,500	32,600	15,500	31,600	13,000	30,700	11,300	29,800	9,100	28,800	6,900	27,900	4,700	26,900	2,400	25,900	100
	Sensible Btuh	20,600	5,100	20,100	3,500	19,600	1,900	19,100	200	18,600	(1,400)	18,100	(3,000)	17,600	(4,600)	17,100	(6,200)	16,600	(7,800)
	S/T	0.615	0.291	0.617	0.226	0.620	0.146	0.622	0.018	0.624	0	0.628	0	0.631	0	0.636	0	0.641	0
	Latent Btuh	12,900	12,400	12,500	12,000	12,000	11,100	11,600	11,100	11,200	10,500	10,700	9,900	10,300	9,300	9,800	8,600	9,300	7,900
	Lbs. H20/hr.	12.2	11.7	11.8	11.3	11.3	10.5	10.9	10.5	10.6	9.9	10.1	9.3	9.7	8.8	9.2	8.1	8.8	7.5
	Supply Air DB	54.3	68.3	54.8	70.5	55.3	72.5	55.9	74.7	56.3	76.9	56.8	79.0	57.3	81.1	57.8	83.1	58.2	85.2
	Supply Air WB	53.2	57.5	53.6	58.5	53.8	59.5	54.3	60.6	54.7	61.6	55.1	62.6	55.5	63.6	55.9	64.7	56.2	65.7
	Suction PSIG[4]	129	122	130	123	131	124	132	126	133	128	134	130	136	132	137	134	138	136
	Discharge PSIG[4]	267	244	286	257	310	271	327	286	350	301	373	318	398	335	424	353	451	371
75/66.7 (65% RH)	Total Cooling Btuh	34,300	18,500	33,400	16,500	32,500	14,000	31,600	12,300	30,600	10,200	29,700	8,000	28,700	5,700	27,800	3,400	26,800	1,100
	Sensible Btuh	19,400	4,400	19,000	2,800	18,500	1,200	18,000	(500)	17,500	(2,100)	17,000	(3,700)	16,500	(5,300)	16,000	(6,900)	15,500	(8,500)
	S/T	0.566	0.24	0.569	0.17	0.569	0.09	0.570	0	0.572	0	0.572	0	0.575	0	0.576	0	0.578	0
	Latent Btuh	14,900	14,100	14,400	13,700	14,000	12,800	13,600	12,800	13,100	12,300	12,700	11,700	12,200	11,000	11,800	10,300	11,300	9,600
	Lbs. H20/hr.	14.1	13.3	13.6	12.9	13.2	12.1	12.8	12.1	12.4	11.6	12.0	11.0	11.5	10.4	11.1	9.7	10.7	9.1
	Supply Air DB	55.4	69.2	55.9	71.3	56.4	73.4	56.9	75.6	57.4	77.7	57.9	79.8	58.4	81.9	58.8	84.0	59.3	86.1
	Supply Air WB	54.5	58.6	54.9	59.6	55.1	60.6	55.7	61.6	56.1	62.6	56.4	63.7	56.8	64.7	57.2	65.7	57.6	66.7
	Suction PSIG[4]	133	125	134	126	134	128	135	129	137	131	138	133	139	135	140	137	142	140
	Discharge PSIG[4]	269	246	288	260	312	274	329	289	351	304	375	321	400	338	425	356	452	374
75/68 (70% RH)	Total Cooling Btuh	35,200	19,600	34,300	17,500	33,300	15,100	32,400	13,300	31,500	11,200	30,500	9,000	29,600	6,700	28,600	4,500	27,600	2,100
	Sensible Btuh	18,300	3,700	17,900	2,100	17,300	500	16,900	(1,200)	16,400	(2,800)	15,900	(4,400)	15,400	(6,000)	14,900	(7,600)	14,400	(9,200)
	S/T	0.520	0.189	0.522	0.120	0.520	0.033	0.522	0	0.521	0	0.521	0	0.520	0	0.521	0	0.522	0
	Latent Btuh	16,900	15,900	16,400	15,400	16,000	14,600	15,500	14,500	15,100	14,000	14,600	13,400	14,200	12,700	13,700	12,100	13,200	11,300
	Lbs. H20/hr.	15.9	15.0	15.5	14.5	15.1	13.8	14.6	13.7	14.2	13.2	13.8	12.6	13.4	12.0	12.9	11.4	12.5	10.7
	Supply Air DB	56.4	70.0	57.0	72.2	57.5	74.2	58.0	76.5	58.5	78.6	59.0	80.7	59.4	82.8	59.9	84.9	60.3	86.9
	Supply Air WB	55.9	59.6	56.2	60.6	56.4	61.7	57.0	62.7	57.4	63.7	57.8	64.7	58.2	65.7	58.5	66.8	58.9	67.8
	Suction PSIG[4]	136	129	137	130	138	131	139	133	140	134	141	136	142	139	144	141	145	143
	Discharge PSIG[4]	271	249	289	263	313	276	331	292	353	307	377	323	401	341	427	358	454	377
80/68.3 (55% RH)	Total Cooling Btuh	35,300	20,100	34,400	18,100	33,500	15,600	32,600	13,900	31,700	11,700	30,700	9,500	29,700	7,300	28,800	5,000	27,800	2,700
	Sensible Btuh	22,500	7,100	22,000	5,400	21,500	3,900	21,100	2,100	20,600	500	20,100	(1,100)	19,600	(2,700)	19,100	(4,300)	18,600	(5,900)
	S/T	0.637	0.35	0.640	0.30	0.642	0.25	0.647	0.15	0.650	0.04	0.655	0	0.660	0	0.663	0	0.669	0
	Latent Btuh	12,800	13,000	12,400	12,700	12,000	11,700	11,500	11,800	11,100	11,200	10,600	10,600	10,100	10,000	9,700	9,300	9,200	8,600
	Lbs. H20/hr.	12.1	12.3	11.7	12.0	11.3	11.0	10.8	11.1	10.5	10.6	10.0	10.0	9.5	9.4	9.2	8.8	8.7	8.1
	Supply Air DB	57.3	70.6	57.8	72.8	58.3	74.8	58.8	77.1	59.3	79.2	59.8	81.3	60.2	83.4	60.7	85.5	61.2	87.5
	Supply Air WB	56.3	59.7	56.6	60.7	56.8	61.7	57.4	62.7	57.8	63.7	58.2	64.8	58.6	65.8	58.9	66.8	59.3	67.8
	Suction PSIG[4]	138	129	138	130	139	132	140	133	141	135	143	137	144	139	145	141	146	144
	Discharge PSIG[4]	269	250	288	263	312	277	329	292	351	308	375	324	400	341	425	359	452	378

[1] Values listed are with ventilation package disabled
[2] Return air temperature °F @ Rated CFM
[3] Below 50°F, unit requires a factory or field installed low ambient control.
[4] Suction pressure +/- 4 psi, Discharge pressure +/- 10 psi

W36G4D Cooling and Dehumidification Application Data[1]

DB/WB[2]	OD Temp.	65°F[3]		70°F		75°F		80°F		85°F		90°F		95°F		100°F		105°F	
	Mode	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum
75/62.5 (50% RH)	Total Cooling Btuh	38,500	18,300	37,400	16,100	36,400	13,700	35,200	11,400	34,000	9,000	32,900	6,600	31,800	4,100	30,600	1,600	29,500	
	Sensible Btuh	28,700	8,200	28,300	6,500	27,800	4,900	27,200	3,100	26,700	1,400	26,100	(400)	25,600	(2,100)	25,000	(3,900)	24,400	(5,700)
	S/T	0.745	0.448	0.757	0.404	0.764	0.358	0.773	0.272	0.785	0.156	0.793	0	0.805	0	0.817	0	0.827	0
	Latent Btuh	9,800	10,100	9,100	9,600	8,600	8,800	8,000	8,300	7,300	7,600	6,800	7,000	6,200	6,200	5,600	5,500	5,100	4,700
	Lbs. H20/hr.	9.2	9.5	8.6	9.1	8.1	8.3	7.5	7.8	6.9	7.2	6.4	6.6	5.8	5.8	5.3	5.2	4.8	4.4
	Supply Air DB	51.4	66.0	51.9	67.9	52.4	69.8	52.9	71.8	53.3	73.7	53.8	75.7	54.3	77.7	54.7	79.7	55.1	81.7
	Supply Air WB	50.3	55.0	50.8	56.0	51.2	56.9	51.7	58.0	52.1	59.0	52.5	60.1	52.9	61.1	53.2	62.1	53.6	63.1
	Suction PSIG[4]	123	114	124	115	124	116	126	117	127	118	128	120	129	121	130	123	132	125
	Discharge PSIG[4]	287	251	307	265	328	279	350	294	373	310	396	326	421	342	447	359	474	377
75/64.1 (55% RH)	Total Cooling Btuh	39,500	19,500	38,400	17,200	37,200	14,900	36,100	12,600	35,000	10,200	33,800	7,700	32,700	5,200	31,600	2,700	30,400	100
	Sensible Btuh	27,300	7,300	26,800	5,600	26,300	3,900	25,700	2,200	25,200	500	24,600	(1,200)	24,100	(3,000)	23,500	(4,800)	22,900	(6,600)
	S/T	0.691	0.37	0.698	0.33	0.707	0.26	0.712	0.17	0.720	0.05	0.728	0	0.737	0	0.744	0	0.753	0
	Latent Btuh	12,200	12,200	11,600	11,600	10,900	11,000	10,400	10,400	9,800	9,700	9,200	8,900	8,600	8,200	8,100	7,500	7,500	6,700
	Lbs. H20/hr.	11.5	11.5	10.9	10.9	10.3	10.4	9.8	9.8	9.2	9.2	8.7	8.4	8.1	7.7	7.6	7.1	7.1	6.3
	Supply Air DB	52.6	67.1	53.1	69.0	53.6	70.9	54.1	72.9	54.5	74.8	55.0	76.8	55.5	78.8	55.9	80.8	56.4	82.7
	Supply Air WB	51.7	56.1	52.2	57.1	52.6	58.1	53.0	59.1	53.4	60.1	53.8	61.1	54.2	62.1	54.6	63.1	54.9	64.1
	Suction PSIG[4]	126	118	126	118	127	119	128	120	130	121	131	123	132	124	133	126	135	128
	Discharge PSIG[4]	289	254	309	268	330	282	352	297	374	313	398	329	423	345	449	362	476	380
75/65.5 (60% RH)	Total Cooling Btuh	40,400	20,700	39,300	18,400	38,300	16,000	37,100	13,700	35,900	11,300	34,800	8,900	33,700	6,400	32,500	3,900	31,400	1,300
	Sensible Btuh	25,800	6,400	25,300	4,700	24,800	3,100	24,300	1,300	23,700	(400)	23,200	(2,100)	22,600	(3,900)	22,000	(5,700)	21,400	(7,400)
	S/T	0.639	0.309	0.644	0.255	0.648	0.194	0.655	0.095	0.660	0	0.667	0	0.671	0	0.677	0	0.682	0
	Latent Btuh	14,600	14,300	14,000	13,700	13,500	12,900	12,800	12,400	12,200	11,700	11,600	11,000	11,100	10,300	10,500	9,600	10,000	8,700
	Lbs. H20/hr.	13.8	13.5	13.2	12.9	12.7	12.2	12.1	11.7	11.5	11.0	10.9	10.4	10.5	9.7	9.9	9.1	9.4	8.2
	Supply Air DB	53.8	68.2	54.3	70.1	54.8	71.9	55.3	74.0	55.8	75.9	56.2	77.9	56.7	79.8	57.1	81.8	57.6	83.8
	Supply Air WB	53.1	57.1	53.5	58.2	53.9	59.1	54.4	60.2	54.8	61.2	55.2	62.2	55.6	63.2	55.9	64.2	56.3	65.2
	Suction PSIG[4]	128	121	129	121	130	122	131	123	132	125	134	126	135	128	136	129	137	131
	Discharge PSIG[4]	291	257	311	271	331	285	353	300	376	316	400	332	425	348	451	365	478	383
75/66.7 (65% RH)	Total Cooling Btuh	41,400	21,800	40,300	19,600	39,200	17,200	38,000	14,900	36,900	12,500	35,700	10,100	34,600	7,600	33,500	5,000	32,300	2,500
	Sensible Btuh	24,300	5,500	23,800	3,900	23,400	2,200	22,800	500	22,200	(1,300)	21,700	(3,000)	21,100	(4,800)	20,500	(6,500)	19,900	(8,300)
	S/T	0.587	0.25	0.591	0.20	0.597	0.13	0.600	0.03	0.602	0	0.608	0	0.610	0	0.612	0	0.616	0
	Latent Btuh	17,100	16,300	16,500	15,700	15,800	15,000	15,200	14,400	14,700	13,800	14,000	13,100	13,500	12,400	13,000	11,500	12,400	10,800
	Lbs. H20/hr.	16.1	15.4	15.6	14.8	14.9	14.2	14.3	13.6	13.9	13.0	13.2	12.4	12.7	11.7	12.3	10.8	11.7	10.2
	Supply Air DB	55.0	69.2	55.5	71.2	56.0	73.0	56.5	75.0	57.0	77.0	57.4	78.9	57.9	80.9	58.4	82.9	58.8	84.9
	Supply Air WB	54.4	58.2	54.9	59.2	55.3	60.1	55.7	61.3	56.1	62.3	56.5	63.3	56.9	64.3	57.3	65.3	57.6	66.3
	Suction PSIG[4]	131	124	132	125	133	125	134	126	135	128	136	129	138	131	139	132	140	134
	Discharge PSIG[4]	293	260	313	274	333	288	355	303	378	319	402	335	427	351	453	368	480	386
75/68 (70% RH)	Total Cooling Btuh	42,300	23,000	41,200	20,700	40,200	18,300	39,000	16,100	37,800	13,700	36,700	11,200	35,600	8,700	34,400	6,200	33,300	3,600
	Sensible Btuh	22,800	4,700	22,300	3,000	21,900	1,400	21,300	(400)	20,800	(2,100)	20,200	(3,900)	19,600	(5,600)	19,000	(7,400)	18,500	(9,200)
	S/T	0.539	0.204	0.541	0.145	0.545	0.077	0.546	0	0.550	0	0.550	0	0.551	0	0.552	0	0.556	0
	Latent Btuh	19,500	18,300	18,900	17,700	18,300	16,900	17,700	16,500	17,000	15,800	16,500	15,100	16,000	14,300	15,400	13,600	14,800	12,800
	Lbs. H20/hr.	18.4	17.3	17.8	16.7	17.3	15.9	16.7	15.6	16.0	14.9	15.6	14.2	15.1	13.5	14.5	12.8	14.0	12.1
	Supply Air DB	56.3	70.3	56.8	72.2	57.2	74.1	57.7	76.1	58.2	78.1	58.7	80.0	59.1	82.0	59.6	84.0	60.0	86.0
	Supply Air WB	55.8	59.3	56.2	60.3	56.7	61.2	57.1	62.3	57.5	63.4	57.9	64.4	58.3	65.4	58.6	66.4	59.0	67.4
	Suction PSIG[4]	134	127	135	128	136	128	137	130	138	131	139	132	141	134	142	136	143	138
	Discharge PSIG[4]	295	263	314	277	335	291	357	306	380	322	404	338	429	354	455	371	482	389
80/68.3 (55% RH)	Total Cooling Btuh	42,700	23,200	41,600	21,000	40,500	18,500	39,300	16,300	38,200	13,900	37,000	11,400	35,900	9,000	34,800	6,400	33,600	3,800
	Sensible Btuh	28,100	8,600	27,600	6,900	27,200	5,300	26,600	3,500	26,100	1,800	25,500	-	24,900	(1,700)	24,400	(3,500)	23,800	(5,300)
	S/T	0.658	0.37	0.663	0.33	0.672	0.29	0.677	0.21	0.683	0.13	0.689	0.00	0.694	0	0.701	0	0.708	0
	Latent Btuh	14,600	14,600	14,000	14,100	13,300	13,200	12,700	12,800	12,100	12,100	11,500	11,400	11,000	10,700	10,400	9,900	9,800	9,100
	Lbs. H20/hr.	13.8	13.8	13.2	13.3	12.5	12.5	12.0	12.1	11.4	11.4	10.8	10.8	10.4	10.1	9.8	9.3	9.2	8.6
	Supply Air DB	56.6	70.7	57.1	72.6	57.6	74.4	58.1	76.5	58.5	78.4	59.0	80.4	59.5	82.3	59.9	84.3	60.4	86.3
	Supply Air WB	55.7	59.4	56.2	60.4	56.6	61.3	57.0	62.4	57.5	63.4	57.9	64.4	58.2	65.4	58.6	66.4	59.0	67.4
	Suction PSIG[4]	137	128	137	129	138	130	139	131	141	132	142	133	143	135	144	137	146	139
	Discharge PSIG[4]	294	263	314	276	335	290	357	306	379	321	403	337	428	354	454	371	481	389

1 Values listed are with ventilation package disabled
2 Return air temperature °F @ Rated CFM
3 Below 50°F, unit requires a factory or field installed low ambient control.
4 Suction pressure +/- 4 psi, Discharge pressure +/- 10 psi

W42G4D Cooling and Dehumidification Application Data[1]

DB/WB[2]	OD Temp.	65°F[3]		70°F		75°F		80°F		85°F		90°F		95°F		100°F		105°F	
	Mode	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum
75/62.5 (50% RH)	Total Cooling Btuh	43,800	21,200	43,400	18,300	42,800	15,400	41,900	12,400	40,800	9,500	39,600	6,600	38,100	3,700	36,400	800	34,500	
	Sensible Btuh	32,800	9,300	32,600	7,000	32,400	4,800	31,800	2,400	31,300	200	30,600	(1,900)	29,900	(3,900)	29,000	(5,900)	28,000	(7,700)
	S/T	0.749	0.439	0.751	0.383	0.757	0.312	0.759	0.194	0.767	0.021	0.773	0	0.785	0	0.797	0	0.812	0
	Latent Btuh	11,000	11,900	10,800	11,300	10,400	10,600	10,100	10,000	9,500	9,300	9,000	8,500	8,200	7,600	7,400	6,700	6,500	5,600
	Lbs. H20/hr.	10.4	11.2	10.2	10.7	9.8	10.0	9.5	9.4	9.0	8.8	8.5	8.0	7.7	7.2	7.0	6.3	6.1	5.3
	Supply Air DB	51.8	67.0	52.2	68.9	52.7	70.8	53.2	72.9	53.7	74.9	54.3	76.9	54.8	79.0	55.3	81.1	55.9	83.2
	Supply Air WB	50.6	55.7	50.9	56.8	51.2	57.7	51.6	58.7	52.0	59.7	52.4	60.6	52.8	61.6	53.2	62.5	53.7	63.4
	Suction PSIG[4]	124	116	126	118	126	119	128	121	129	122	130	122	131	123	131	123	132	123
	Discharge PSIG[4]	282	249	300	263	319	277	340	291	363	307	387	323	413	339	441	356	471	374
75/64.1 (55% RH)	Total Cooling Btuh	44,800	22,600	44,400	19,600	43,800	16,700	43,000	13,800	41,900	10,900	40,600	7,900	39,200	5,000	37,400	2,100	35,500	
	Sensible Btuh	31,200	8,400	31,000	6,000	30,600	3,700	30,200	1,400	29,600	(700)	29,000	(2,800)	28,200	(4,900)	27,300	(6,800)	26,400	(8,700)
	S/T	0.696	0.37	0.698	0.31	0.699	0.22	0.702	0.10	0.706	0	0.714	0	0.719	0	0.730	0	0.744	0
	Latent Btuh	13,600	14,200	13,400	13,600	13,200	13,000	12,800	12,400	12,300	11,600	11,600	10,700	11,000	9,900	10,100	8,900	9,100	7,900
	Lbs. H20/hr.	12.8	13.4	12.6	12.8	12.5	12.3	12.1	11.7	11.6	10.9	10.9	10.1	10.4	9.3	9.5	8.4	8.6	7.5
	Supply Air DB	52.9	68.0	53.4	69.9	53.9	71.8	54.4	73.8	54.9	75.8	55.4	77.8	56.0	79.9	56.5	82.0	57.0	84.1
	Supply Air WB	52.0	56.8	52.3	57.8	52.7	58.8	53.0	59.8	53.4	60.8	53.8	61.7	54.2	62.7	54.6	63.6	55.1	64.5
	Suction PSIG[4]	127	119	129	121	130	123	131	124	132	125	133	126	134	126	134	126	135	126
	Discharge PSIG[4]	284	253	302	266	321	280	342	295	365	310	389	326	415	342	443	359	472	377
75/65.5 (60% RH)	Total Cooling Btuh	45,900	23,900	45,500	21,000	44,900	18,100	44,000	15,100	43,000	12,200	41,700	9,300	40,200	6,400	38,500	3,500	36,600	600
	Sensible Btuh	29,500	7,400	29,300	5,000	29,100	2,900	28,500	500	28,000	(1,700)	27,300	(3,800)	26,600	(5,800)	25,700	(7,800)	24,700	(9,700)
	S/T	0.643	0.310	0.644	0.238	0.648	0.160	0.648	0.033	0.651	0	0.655	0	0.662	0	0.668	0	0.675	0
	Latent Btuh	16,400	16,500	16,200	16,000	15,800	15,200	15,500	14,600	15,000	13,900	14,400	13,100	13,600	12,200	12,800	11,300	11,900	10,300
	Lbs. H20/hr.	15.5	15.6	15.3	15.1	14.9	14.3	14.6	13.8	14.2	13.1	13.6	12.4	12.8	11.5	12.1	10.7	11.2	9.7
	Supply Air DB	54.1	68.9	54.6	70.8	55.1	72.6	55.6	74.7	56.1	76.8	56.6	78.8	57.1	80.8	57.7	82.9	58.2	85.0
	Supply Air WB	53.4	57.9	53.7	58.9	54.0	59.9	54.4	60.9	54.8	61.9	55.2	62.8	55.6	63.7	56.0	64.6	56.5	65.5
	Suction PSIG[4]	130	123	132	124	132	125	134	127	135	128	136	129	137	129	137	129	138	129
	Discharge PSIG[4]	286	256	303	269	322	283	344	298	366	313	391	329	417	345	444	362	474	380
75/66.7 (65% RH)	Total Cooling Btuh	47,000	25,300	46,600	22,400	46,000	19,400	45,100	16,500	44,000	13,600	42,800	10,700	41,300	7,700	39,600	4,800	37,700	1,900
	Sensible Btuh	27,800	6,400	27,600	4,100	27,400	1,900	26,800	(500)	26,300	(2,700)	25,600	(4,800)	24,900	(6,800)	24,000	(8,800)	23,000	(10,600)
	S/T	0.591	0.25	0.592	0.18	0.596	0.10	0.594	0	0.598	0	0.598	0	0.603	0	0.606	0	0.610	0
	Latent Btuh	19,200	18,900	19,000	18,300	18,600	17,500	18,300	17,000	17,700	16,300	17,200	15,500	16,400	14,500	15,600	13,600	14,700	12,500
	Lbs. H20/hr.	18.1	17.8	17.9	17.3	17.5	16.5	17.3	16.0	16.7	15.4	16.2	14.6	15.5	13.7	14.7	12.8	13.9	11.8
	Supply Air DB	55.3	69.8	55.8	71.7	56.3	73.6	56.8	75.7	57.3	77.7	57.8	79.7	58.3	81.8	58.8	83.9	59.4	86.0
	Supply Air WB	54.8	59.0	55.1	60.0	55.4	61.0	55.8	62.0	56.2	62.9	56.6	63.9	57.0	64.8	57.4	65.7	57.9	66.6
	Suction PSIG[4]	133	126	135	127	135	128	137	130	138	131	139	132	140	132	141	132	141	132
	Discharge PSIG[4]	287	259	305	272	324	286	345	301	368	316	392	332	418	348	446	365	476	383
75/68 (70% RH)	Total Cooling Btuh	48,000	26,600	47,600	23,700	47,000	20,800	46,200	17,900	45,100	14,900	43,800	12,000	42,400	9,100	40,600	6,200	38,700	3,300
	Sensible Btuh	26,200	5,500	26,000	3,100	25,800	1,000	25,200	(1,500)	24,600	(3,600)	24,000	(5,700)	23,200	(7,800)	22,300	(9,700)	21,400	(11,600)
	S/T	0.546	0.207	0.546	0.131	0.549	0.048	0.545	0	0.545	0	0.548	0	0.547	0	0.549	0	0.553	0
	Latent Btuh	21,800	21,100	21,600	20,600	21,200	19,800	21,000	19,400	20,500	18,500	19,800	17,700	19,200	16,900	18,300	15,900	17,300	14,900
	Lbs. H20/hr.	20.6	19.9	20.4	19.4	20.0	18.7	19.8	18.3	19.3	17.5	18.7	16.7	18.1	15.9	17.3	15.0	16.3	14.1
	Supply Air DB	56.5	70.8	56.9	72.7	57.4	74.5	57.9	76.6	58.4	78.6	59.0	80.7	59.5	82.7	60.0	84.8	60.6	86.9
	Supply Air WB	56.2	60.1	56.5	61.1	56.8	62.1	57.2	63.1	57.6	64.0	58.0	65.0	58.4	65.9	58.8	66.8	59.3	67.7
	Suction PSIG[4]	136	129	138	131	138	131	140	133	141	134	142	135	143	135	144	136	144	136
	Discharge PSIG[4]	289	262	306	275	325	289	347	304	369	319	394	335	420	351	448	368	477	386
80/68.3 (55% RH)	Total Cooling Btuh	48,500	27,200	48,100	24,200	47,500	21,300	46,700	18,400	45,600	15,400	44,400	12,500	42,900	9,600	41,200	6,700	39,200	3,800
	Sensible Btuh	32,300	10,200	32,100	7,900	31,900	5,700	31,300	3,300	30,800	1,100	30,100	(1,000)	29,300	(3,000)	28,500	(5,000)	27,500	(6,800)
	S/T	0.666	0.38	0.667	0.33	0.672	0.27	0.670	0.18	0.675	0.07	0.678	0	0.683	0	0.692	0	0.702	0
	Latent Btuh	16,200	17,000	16,000	16,300	15,600	15,600	15,400	15,100	14,800	14,300	14,300	13,500	13,600	12,600	12,700	11,700	11,700	10,600
	Lbs. H20/hr.	15.3	16.0	15.1	15.4	14.7	14.7	14.5	14.2	14.0	13.5	13.5	12.7	12.8	11.9	12.0	11.0	11.0	10.0
	Supply Air DB	57.2	71.6	57.6	73.5	58.1	75.3	58.6	77.4	59.1	79.4	59.7	81.4	60.2	83.5	60.7	85.6	61.2	87.7
	Supply Air WB	56.2	60.0	56.5	61.0	56.8	62.0	57.2	63.0	57.6	64.0	58.0	64.9	58.4	65.9	58.8	66.8	59.3	67.7
	Suction PSIG[4]	139	129	140	131	140	132	143	134	144	135	145	135	145	136	146	136	146	136
	Discharge PSIG[4]	287	261	304	274	323	288	345	303	367	318	392	334	418	350	446	368	475	385

[1] Values listed are with ventilation package disabled
[2] Return air temperature °F @ Rated CFM
[3] Below 50°F, unit requires a factory or field installed low ambient control.
[4] Suction pressure +/- 4 psi, Discharge pressure +/- 10 psi

W48G4D Cooling and Dehumidification Application Data[1]

DB/WB[2]	OD Temp.	65°F[3]		70°F		75°F		80°F		85°F		90°F		95°F		100°F		105°F	
	Mode	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum
75/62.5 (50% RH)	Total Cooling Btuh	51,700	24,800	50,300	21,800	48,900	18,700	47,500	15,500	46,000	12,200	44,600	8,900	43,100	5,400	41,600	1,900	40,200	
	Sensible Btuh	38,600	11,500	38,100	9,100	37,300	6,800	36,900	4,400	36,300	2,000	35,700	(400)	35,000	(2,800)	34,300	(5,200)	33,600	(7,700)
	S/T	0.747	0.464	0.757	0.417	0.763	0.364	0.777	0.284	0.789	0.164	0.800	0	0.812	0	0.825	0	0.836	0
	Latent Btuh	13,100	13,300	12,200	12,700	11,600	11,900	10,600	11,100	9,700	10,200	8,900	9,300	8,100	8,200	7,300	7,100	6,600	5,900
	Lbs. H20/hr.	12.4	12.5	11.5	12.0	10.9	11.2	10.0	10.5	9.2	9.6	8.4	8.8	7.6	7.7	6.9	6.7	6.2	5.6
	Supply Air DB	51.8	66.0	52.3	67.9	52.5	69.7	53.2	71.7	53.6	73.6	54.0	75.5	54.4	77.5	54.8	79.4	55.2	81.4
	Supply Air WB	50.7	55.3	51.1	56.3	51.3	57.2	51.9	58.2	52.3	59.2	52.6	60.2	53.0	61.2	53.3	62.2	53.7	63.2
	Suction PSIG[4]	119	109	120	110	120	112	121	113	122	115	123	116	124	118	126	119	127	121
	Discharge PSIG[4]	282	252	301	265	325	279	343	294	366	309	390	324	415	340	442	357	470	375
75/64.1 (55% RH)	Total Cooling Btuh	52,900	26,300	51,600	23,300	50,200	20,200	48,700	17,000	47,300	13,700	45,900	10,400	44,400	6,900	42,900	3,400	41,400	
	Sensible Btuh	36,600	10,300	36,000	8,000	35,500	5,600	34,900	3,300	34,200	900	33,600	(1,500)	32,900	(4,000)	32,200	(6,400)	31,500	(8,900)
	S/T	0.692	0.39	0.698	0.34	0.707	0.28	0.717	0.19	0.723	0.07	0.732	0	0.741	0	0.751	0	0.761	0
	Latent Btuh	16,300	16,000	15,600	15,300	14,700	14,600	13,800	13,700	13,100	12,800	12,300	11,900	11,500	10,900	10,700	9,800	9,900	8,600
	Lbs. H20/hr.	15.4	15.1	14.7	14.4	13.9	13.8	13.0	12.9	12.4	12.1	11.6	11.2	10.8	10.3	10.1	9.2	9.3	8.1
	Supply Air DB	53.1	67.0	53.5	68.9	54.0	70.8	54.4	72.7	54.8	74.6	55.2	76.6	55.6	78.5	56.0	80.5	56.4	82.4
	Supply Air WB	52.1	56.4	52.5	57.4	52.9	58.3	53.3	59.3	53.6	60.3	54.0	61.3	54.4	62.3	54.7	63.3	55.1	64.3
	Suction PSIG[4]	122	112	123	113	123	115	124	116	125	117	126	119	127	120	129	122	130	123
	Discharge PSIG[4]	284	256	303	269	324	282	345	297	368	312	392	327	417	344	444	360	472	378
75/65.5 (60% RH)	Total Cooling Btuh	54,200	27,900	52,800	24,800	51,400	21,700	50,000	18,500	48,600	15,300	47,200	11,900	45,700	8,400	44,200	4,900	42,700	1,300
	Sensible Btuh	34,500	9,200	34,000	6,800	33,200	4,500	32,800	2,100	32,200	(300)	31,500	(2,700)	30,900	(5,100)	30,200	(7,600)	29,400	(10,000)
	S/T	0.637	0.330	0.644	0.274	0.646	0.207	0.656	0.114	0.663	0	0.667	0	0.676	0	0.683	0	0.689	0
	Latent Btuh	19,700	18,700	18,800	18,000	18,200	17,200	17,200	16,400	16,400	15,600	15,700	14,600	14,800	13,500	14,000	12,500	13,300	11,300
	Lbs. H20/hr.	18.6	17.6	17.7	17.0	17.2	16.2	16.2	15.5	15.5	14.7	14.8	13.8	14.0	12.7	13.2	11.8	12.5	10.7
	Supply Air DB	54.3	68.0	54.8	69.9	55.0	71.8	55.6	73.7	56.0	75.7	56.5	77.6	56.9	79.5	57.3	81.5	57.7	83.4
	Supply Air WB	53.5	57.5	53.9	58.5	54.0	59.4	54.6	60.4	55.0	61.4	55.4	62.4	55.7	63.4	56.1	64.4	56.4	65.4
	Suction PSIG[4]	125	115	126	116	126	118	127	119	128	120	129	122	130	123	132	125	133	126
	Discharge PSIG[4]	287	259	305	272	329	285	347	300	370	315	394	330	419	347	446	364	474	381
75/66.7 (65% RH)	Total Cooling Btuh	55,500	29,400	54,100	26,400	52,700	23,200	51,300	20,100	49,900	16,800	48,400	13,400	47,000	10,000	45,500	6,400	44,000	2,800
	Sensible Btuh	32,500	8,000	31,900	5,700	31,100	3,400	30,700	1,000	30,100	(1,400)	29,500	(3,800)	28,800	(6,300)	28,100	(8,700)	27,400	(11,200)
	S/T	0.586	0.27	0.590	0.22	0.590	0.15	0.598	0.05	0.603	0	0.610	0	0.613	0	0.618	0	0.623	0
	Latent Btuh	23,000	21,400	22,200	20,700	21,600	19,800	20,600	19,100	19,800	18,200	18,900	17,200	18,200	16,300	17,400	15,100	16,600	14,000
	Lbs. H20/hr.	21.7	20.2	20.9	19.5	20.4	18.7	19.4	18.0	18.7	17.2	17.8	16.2	17.2	15.4	16.4	14.2	15.7	13.2
	Supply Air DB	55.6	69.1	56.0	70.9	56.3	72.8	56.9	74.8	57.3	76.7	57.7	78.6	58.1	80.5	58.5	82.5	58.9	84.5
	Supply Air WB	54.9	58.6	55.3	59.6	55.4	60.5	56.0	61.5	56.4	62.5	56.8	63.5	57.1	64.5	57.5	65.5	57.8	66.5
	Suction PSIG[4]	128	118	129	119	129	121	130	122	131	123	132	124	133	126	135	128	136	129
	Discharge PSIG[4]	289	262	307	275	331	288	349	303	372	318	396	333	421	350	448	367	476	384
75/68 (70% RH)	Total Cooling Btuh	56,800	30,900	55,400	27,900	54,000	24,800	52,600	21,600	51,200	18,300	49,700	14,900	48,300	11,500	46,800	7,900	45,300	4,300
	Sensible Btuh	30,400	6,900	29,900	4,500	29,100	2,200	28,700	(200)	28,100	(2,600)	27,400	(5,000)	26,700	(7,400)	26,000	(9,900)	25,300	(12,300)
	S/T	0.535	0.223	0.540	0.161	0.539	0.089	0.546	0	0.549	0	0.551	0	0.553	0	0.556	0	0.558	0
	Latent Btuh	26,400	24,000	25,500	23,400	24,900	22,600	23,900	21,800	23,100	20,900	22,300	19,900	21,600	18,900	20,800	17,800	20,000	16,600
	Lbs. H20/hr.	24.9	22.6	24.1	22.1	23.5	21.3	22.5	20.6	21.8	19.7	21.0	18.8	20.4	17.8	19.6	16.8	18.9	15.7
	Supply Air DB	56.8	70.1	57.2	72.0	57.5	73.8	58.1	75.8	58.5	77.7	58.9	79.6	59.3	81.6	59.7	83.5	60.1	85.5
	Supply Air WB	56.2	59.7	56.6	60.7	56.8	61.6	57.4	62.6	57.8	63.6	58.1	64.6	58.5	65.6	58.9	66.6	59.2	67.6
	Suction PSIG[4]	131	120	132	122	132	123	133	124	134	126	135	127	136	129	138	130	139	132
	Discharge PSIG[4]	291	265	309	278	333	291	351	306	374	321	398	337	423	353	450	370	478	387
80/68.3 (55% RH)	Total Cooling Btuh	56,900	31,200	55,600	28,200	54,200	25,100	52,700	21,900	51,300	18,600	49,900	15,300	48,400	11,800	46,900	8,300	45,400	4,600
	Sensible Btuh	37,700	12,000	37,100	9,700	36,300	7,400	35,900	5,000	35,300	2,600	34,700	200	34,000	(2,300)	33,300	(4,700)	32,600	(7,200)
	S/T	0.663	0.38	0.667	0.34	0.670	0.29	0.681	0.23	0.688	0.14	0.695	0.01	0.702	0	0.710	0	0.718	0
	Latent Btuh	19,200	19,200	18,500	18,500	17,900	17,700	16,800	16,900	16,000	16,000	15,200	15,100	14,400	14,100	13,600	13,000	12,800	11,800
	Lbs. H20/hr.	18.1	18.1	17.5	17.5	16.9	16.7	15.8	15.9	15.1	15.1	14.3	14.2	13.6	13.3	12.8	12.3	12.1	11.1
	Supply Air DB	57.4	70.7	57.9	72.6	58.1	74.4	58.7	76.4	59.2	78.3	59.6	80.2	60.0	82.2	60.4	84.1	60.8	86.1
	Supply Air WB	56.5	59.7	56.9	60.7	57.0	61.6	57.6	62.6	58.0	63.6	58.4	64.6	58.7	65.6	59.1	66.6	59.4	67.6
	Suction PSIG[4]	132	121	133	122	133	124	134	125	135	126	136	128	137	129	139	131	140	132
	Discharge PSIG[4]	286	264	305	277	328	291	347	305	369	320	393	336	419	352	445	369	473	386

[1] Values listed are with ventilation package disabled
[2] Return air temperature °F @ Rated CFM
[3] Below 50°F, unit requires a factory or field installed low ambient control.
[4] Suction pressure +/- 4 psi, Discharge pressure +/- 10 psi

W60G4D Cooling and Dehumidification Application Data[1]

DB/WB[2]	OD Temp.	65°F[3]		70°F		75°F		80°F		85°F		90°F		95°F		100°F		105°F	
	Mode	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum
75/62.5 (50% RH)	Total Cooling Btuh	61,600	31,700	59,800	28,400	58,000	25,000	56,200	21,600	54,400	18,200	52,600	14,600	50,900	11,000	49,100	7,300	47,400	3,600
	Sensible Btuh	45,400	14,000	44,700	11,600	44,200	9,200	43,100	6,500	42,300	3,900	41,500	1,300	40,600	(1,300)	39,800	(4,100)	39,000	(6,800)
	S/T	0.737	0.442	0.747	0.408	0.762	0.368	0.767	0.301	0.778	0.214	0.789	0.089	0.798	0	0.811	0	0.823	0
	Latent Btuh	16,200	17,700	15,100	16,800	13,800	15,800	13,100	15,100	12,100	14,300	11,100	13,300	10,300	12,300	9,300	11,400	8,400	10,400
	Lbs. H20/hr.	15.3	16.7	14.2	15.8	13.0	14.9	12.4	14.2	11.4	13.5	10.5	12.5	9.7	11.6	8.8	10.8	7.9	9.8
	Supply Air DB	50.1	64.8	50.6	66.6	50.9	68.4	51.6	70.4	52.0	72.4	52.5	74.3	52.9	76.3	53.4	78.4	53.8	80.4
	Supply Air WB	49.4	53.9	49.9	54.9	50.1	55.8	50.8	56.8	51.2	57.8	51.6	58.8	52.0	59.8	52.4	60.8	52.8	61.7
	Suction PSIG[4]	122	114	123	115	124	116	125	118	126	120	127	121	128	122	130	124	131	125
	Discharge PSIG[4]	284	267	304	280	325	293	347	308	370	323	394	339	419	355	445	372	473	390
75/64.1 (55% RH)	Total Cooling Btuh	63,100	33,200	61,300	29,900	59,500	26,500	57,700	23,100	55,900	19,600	54,200	16,100	52,400	12,500	50,600	8,800	48,900	5,100
	Sensible Btuh	43,100	12,600	42,400	10,200	41,600	7,700	40,800	5,100	40,000	2,600	39,200	(100)	38,300	(2,700)	37,500	(5,400)	36,700	(8,200)
	S/T	0.683	0.38	0.692	0.34	0.699	0.29	0.707	0.22	0.716	0.13	0.723	0	0.731	0	0.741	0	0.751	0
	Latent Btuh	20,000	20,600	18,900	19,700	17,900	18,800	16,900	18,000	15,900	17,000	15,000	16,200	14,100	15,200	13,100	14,200	12,200	13,300
	Lbs. H20/hr.	18.9	19.4	17.8	18.6	16.9	17.7	15.9	17.0	15.0	16.0	14.2	15.3	13.3	14.3	12.4	13.4	11.5	12.5
	Supply Air DB	51.5	65.9	51.9	67.8	52.4	69.6	52.9	71.5	53.3	73.5	53.8	75.5	54.2	77.5	54.7	79.5	55.1	81.6
	Supply Air WB	50.8	55.0	51.3	56.0	51.7	57.0	52.2	58.0	52.6	59.0	53.0	60.0	53.4	61.0	53.8	61.9	54.2	62.9
	Suction PSIG[4]	126	117	126	119	127	120	128	121	129	123	130	124	132	126	133	127	134	128
	Discharge PSIG[4]	286	270	306	283	327	297	349	311	372	326	396	342	421	359	447	376	475	394
75/65.5 (60% RH)	Total Cooling Btuh	64,600	34,600	62,800	31,400	61,000	28,000	59,200	24,600	57,500	21,100	55,700	17,600	53,900	14,000	52,200	10,300	50,400	6,600
	Sensible Btuh	40,900	11,300	40,100	8,800	39,600	6,400	38,500	3,700	37,700	1,200	36,900	(1,500)	36,000	(4,100)	35,200	(6,800)	34,400	(9,600)
	S/T	0.633	0.327	0.639	0.280	0.649	0.229	0.650	0.150	0.656	0.057	0.662	0	0.668	0	0.674	0	0.683	0
	Latent Btuh	23,700	23,300	22,700	22,600	21,400	21,600	20,700	20,900	19,800	19,900	18,800	19,100	17,900	18,100	17,000	17,100	16,000	16,200
	Lbs. H20/hr.	22.4	22.0	21.4	21.3	20.2	20.4	19.5	19.7	18.7	18.8	17.7	18.0	16.9	17.1	16.0	16.1	15.1	15.3
	Supply Air DB	52.8	67.0	53.3	68.9	53.5	70.6	54.2	72.7	54.7	74.6	55.1	76.6	55.6	78.6	56.0	80.6	56.4	82.7
	Supply Air WB	52.2	56.2	52.7	57.2	52.9	58.2	53.6	59.2	54.0	60.2	54.4	61.1	54.8	62.1	55.2	63.1	55.6	64.1
	Suction PSIG[4]	129	120	130	122	130	123	131	124	132	126	134	127	135	129	136	130	137	131
	Discharge PSIG[4]	287	274	308	287	329	300	351	315	374	330	398	346	423	362	449	379	476	397
75/66.7 (65% RH)	Total Cooling Btuh	66,200	36,100	64,400	32,800	62,500	29,500	60,800	26,100	59,000	22,600	57,200	19,100	55,400	15,500	53,700	11,800	51,900	8,100
	Sensible Btuh	38,600	9,900	37,800	7,400	37,300	5,100	36,200	2,400	35,400	(200)	34,600	(2,800)	33,700	(5,500)	32,900	(8,200)	32,100	(11,000)
	S/T	0.583	0.27	0.587	0.23	0.597	0.17	0.595	0.09	0.600	0	0.605	0	0.608	0	0.613	0	0.618	0
	Latent Btuh	27,600	26,200	26,600	25,400	25,200	24,400	24,600	23,700	23,600	22,800	22,600	21,900	21,700	21,000	20,800	20,000	19,800	19,100
	Lbs. H20/hr.	26.0	24.7	25.1	24.0	23.8	23.0	23.2	22.4	22.3	21.5	21.3	20.7	20.5	19.8	19.6	18.9	18.7	18.0
	Supply Air DB	54.1	68.1	54.6	70.0	54.8	71.8	55.5	73.8	56.0	75.7	56.4	77.7	56.9	79.7	57.3	81.7	57.7	83.8
	Supply Air WB	53.6	57.4	54.1	58.4	54.3	59.3	55.0	60.4	55.4	61.3	55.8	62.3	56.2	63.3	56.6	64.3	57.0	65.3
	Suction PSIG[4]	132	123	133	125	134	126	135	128	136	129	137	130	138	132	139	133	141	135
	Discharge PSIG[4]	289	277	310	290	331	304	353	318	376	334	400	349	425	366	451	383	478	401
75/68 (70% RH)	Total Cooling Btuh	67,700	37,600	65,900	34,300	64,100	30,900	62,300	27,600	60,500	24,100	58,700	20,500	57,000	16,900	55,200	13,300	53,500	9,500
	Sensible Btuh	36,300	8,500	35,500	6,000	35,000	3,700	33,900	1,000	33,100	(1,600)	32,300	(4,200)	31,400	(6,900)	30,600	(9,600)	29,800	(12,400)
	S/T	0.536	0.226	0.539	0.175	0.546	0.120	0.544	0.036	0.547	0	0.550	0	0.551	0	0.554	0	0.557	0
	Latent Btuh	31,400	29,100	30,400	28,300	29,100	27,200	28,400	26,600	27,400	25,700	26,400	24,700	25,600	23,800	24,600	22,900	23,700	21,900
	Lbs. H20/hr.	29.6	27.5	28.7	26.7	27.5	25.7	26.8	25.1	25.8	24.2	24.9	23.3	24.2	22.5	23.2	21.6	22.4	20.7
	Supply Air DB	55.4	69.3	55.9	71.1	56.2	72.9	56.8	74.9	57.3	76.8	57.7	78.8	58.2	80.8	58.6	82.8	59.1	84.9
	Supply Air WB	55.0	58.6	55.5	59.5	55.7	60.5	56.4	61.5	56.8	62.5	57.2	63.5	57.6	64.5	58.0	65.5	58.4	66.4
	Suction PSIG[4]	135	126	136	128	137	129	138	131	139	132	140	134	141	135	142	136	144	138
	Discharge PSIG[4]	291	281	311	294	332	307	355	322	378	337	402	353	427	369	453	386	480	404
80/68.3 (55% RH)	Total Cooling Btuh	67,900	37,800	66,100	34,500	64,300	31,100	62,500	27,700	60,700	24,200	58,900	20,700	57,200	17,100	55,400	13,400	53,700	9,700
	Sensible Btuh	43,900	14,400	43,100	11,900	42,700	9,600	41,500	6,900	40,700	4,300	39,900	1,700	39,100	(1,000)	38,300	(3,700)	37,400	(6,400)
	S/T	0.647	0.38	0.652	0.34	0.664	0.31	0.664	0.25	0.671	0.18	0.677	0.08	0.684	0	0.691	0	0.696	0
	Latent Btuh	24,000	23,400	23,000	22,600	21,600	21,500	21,000	20,800	20,000	19,900	19,000	19,000	18,100	18,100	17,100	17,100	16,300	16,100
	Lbs. H20/hr.	22.6	22.1	21.7	21.3	20.4	20.3	19.8	19.6	18.9	18.8	17.9	17.9	17.1	17.1	16.1	16.1	15.4	15.2
	Supply Air DB	55.9	69.6	56.4	71.5	56.6	73.3	57.3	75.3	57.8	77.2	58.2	79.2	58.7	81.2	59.1	83.2	59.5	85.3
	Supply Air WB	55.3	58.6	55.7	59.6	55.9	60.6	56.6	61.6	57.0	62.6	57.4	63.6	57.9	64.6	58.3	65.5	58.6	66.5
	Suction PSIG[4]	136	127	136	128	137	129	138	131	139	133	140	134	142	135	143	137	144	138
	Discharge PSIG[4]	291	280	311	293	332	306	354	321	377	336	401	352	426	368	452	385	480	403

[1] Values listed are with ventilation package disabled
[2] Return air temperature °F @ Rated CFM
[3] Below 50°F, unit requires a factory or field installed low ambient control.
[4] Suction pressure +/- 4 psi, Discharge pressure +/- 10 psi

TABLE 3A
Specifications
W24G4D, W30G4D and W36G4D Models

Models	W24G4DA	W24G4DB	W24G4DC	W30G4DA	W30G4DB	W30G4DC	W36G4DA	W36G4DB	W36G4DC
Electrical Rating – 60 Hz	230/208-1	230/208-3	460-3	230/208-1	230/208-3	460-3	230/208-1	230/208-3	460-3
Operating Voltage Range	197-253	187-253	414-506	197-253	187-253	414-506	197-253	187-253	414-506
Minimum Circuit Ampacity	20.8	12.8	7.8	22.5	16	7.8	26.4	18.7	10.6
* Field Wire Size	10	14	14	10	12	14	8	10	14
Ground Wire Size	10	14	14	10	12	14	10	10	14
** Delay Fuse or Circuit Breaker Max.	30	15	10	30	20	10	35	25	15
Compressor									
Voltage	230/208	230/208	460	230/208	230/208	460	230/208	230/208	460
Rated Load Amps	7.9/9.2	4.8/5.6	2.6	9.3/10.6	6/6.8	3.2	12.6/14.3	8.2/9.3	5.1
Branch Circuit Selection Current	12.9	6.5	3.6	14.2	9	4.2	16.7	10.5	5.8
Lock Rotor Amps	58.3	55.4	28	73	58	28	79	73	38
Compressor Type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Fan Motor and Condenser									
Fan Motor – HP/RPM/SPD	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1
Fan Motor – Amps	1.4	1.4	0.8	1.4	1.4	0.8	1.4	1.4	0.8
Fan – DIA/CFM	20” - 2100	20” - 2100	20” - 2100	20” - 2100	20” - 2100	20” - 2100	20” - 2000	20” - 2000	20” - 2000
Blower Motor and Evaporator									
Blower Motor – HP/RPM/SPD	1/2-670-5	1/2-670-5	1/2-670-5	1/2-750-5	1/2-750-5	1/2-750-5	1/2-870-5	1/2-870-5	1/2-870-5
Blower Motor – Amps	1	1	1.2	1.1	1.1	0.6	1.9	1.9	1.2
CFM Cooling and E.S.P.	800 - 0.15	800 - 0.15	800 - 0.15	900 - 0.15	900 - 0.15	900 - 0.15	1100 - 0.15	1100 - 0.15	1100 - 0.15
Filter Size	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2
Shipping Weight – LBS.	500	500	500	530	530	530	540	540	540
Unit Charge (R-410A lb.)	5.750	5.750	5.750	6.125	6.125	6.125	7.125	7.125	7.125

* 75° C Copper wire size
** Maximum time delay fuse or circuit breaker

TABLE 3B
Specifications
W42G4D, W48G4D and W60G4D Models

Models	W42G4DA	W42G4DB	W42G4DC	W48G4DA	W48G4DB	W48G4DC	W60G4DA	W60G4DB	W60G4DC
Electrical Rating – 60 Hz	230/208-1	230/208-3	460-3	230/208-1	230/208-3	460-3	230/208-1	230/208-3	460-3
Operating Voltage Range	197-253	187-253	414-506	197-253	187-253	414-506	197-253	187-253	414-506
Minimum Circuit Ampacity	31.3	23.4	11.6	34.8	25	12	40.6	30.1	15.2
* Field Wire Size	8	10	14	8	10	14	8	8	12
Ground Wire Size	10	10	14	10	10	14	10	10	12
** Delay Fuse or Circuit Breaker Max.	40	30	15	50	30	15	50	40	20
Compressor									
Voltage	230/208	230/208	460	230/208	230/208	460	230/208	230/208	460
Rated Load Amps	14.3/16.2	9.8/11.1	5.9	16.2/18.6	10.2/11.8	6.2	20/22.6	13.2/14.9	7.2
Branch Circuit Selection Current	19.9	13.6	6.1	21.8	13.8	6.3	24.4	16	7.8
Lock Rotor Amps	112	88	44	117	83.1	41	144.2	110	52
Compressor Type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Fan Motor and Condenser									
Fan Motor – HP/RPM/SPD	1/3-850-1	1/3-850-1	1/3-850-1	1/3-830-1	1/3-830-1	1/3-830-1	1/2-1000-1	1/2-1000-1	1/2-1000-1
Fan Motor – Amps	1.9	1.9	1	1.9	1.9	1	3.8	3.8	2.5
Fan – DIA/CFM	24" - 2900	24" - 2900	24" - 2900	24" - 2700	24" - 2700	24" - 2700	24" - 3400	24" - 3400	24" - 3400
Blower Motor and Evaporator									
Blower Motor – HP/RPM/SPD	3/4-850-5	3/4-850-5	3/4-850-5	3/4-940-5	3/4-940-5	3/4-940-5	3/4-1040-5	3/4-1040-5	3/4-1040-5
Blower Motor – Amps	2.3	2.3	1.7	3.4	3.4	1.7	4.1	4.1	1.7
CFM Cooling and E.S.P.	1300 - 0.15	1300 - 0.15	1300 - 0.15	1450 - 0.20	1450 - 0.20	1450 - 0.20	1650 - 0.20	1650 - 0.20	1650 - 0.20
Filter Size	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2
Shipping Weight – LBS.	500	500	500	530	530	530	550	550	550
Unit Charge (R-410A lb.)	6.375	6.375	6.375	7.500	7.500	7.500	10.250	10.250	10.250

* 75° C Copper wire size
** Maximum time delay fuse or circuit breaker

TABLE 4
Wiring Diagram Index

Unit Model No.	Basic Wiring Diagram
W24G4DA	4085-173
W24G4DB	4085-273
W24G4DC	4085-396
W30G4DA	4085-173
W30G4DB	4085-273
W30G4DC	4085-396
W36G4DA	4085-173
W36G4DB	4085-273
W36G4DC	4085-396
W42G4DA	4085-173
W42G4DB	4085-273
W42G4DC	4085-396
W48G4DA	4085-173
W48G4DB	4085-273
W48G4DC	4085-396
W60G4DA	4085-171
W60G4DB	4085-271
W60G4DC	4085-394

TABLE 5
Thermostat Wire Size

Transformer VA	FLA	Wire Gauge	Maximum Distance in Feet
55	2.3	20 gauge 18 gauge 16 gauge 14 gauge 12 gauge	45 60 100 160 250

TABLE 6
Wall Thermostat

Thermostat	Predominant Features
8403-060* (1120-445)	3 Stage Cool; 3 Stage Heat Programmable/Non-Programmable Electronic HP or Conventional Auto or Manual changeover
8403-082 (VT8600U5500B)	2 stage Cool; 2 stage Heat Programmable/Non-Programmable Electronic HP or Conventional, Auto or Manual changeover with Occupancy Sensor, BACnet
8403-084 (VT8600U5000B)	2 stage Cool; 2 stage Heat Programmable/Non-Programmable Electronic HP or Conventional, Auto or Manual changeover with BACnet
8403-089 (T4 Pro)	1 stage Cool; 1 stage Heat – Heat Pump 1 stage Cool; 1 stage Heat – Conventional Programmable/Non-Programmable Electronic Auto or Manual changeover
8403-090 (T6 Pro)	2 stage Cool; 3 stage Heat – Heat Pump 2 stage Cool; 2 stage Heat – Conventional Programmable/Non-Programmable Electronic Auto or Manual changeover
8403-091 (T701-FEMA)	1 stage Cool, 1 stage Heat Non-Programmable FEMA use
8403-092 (T6 Pro Wi-Fi)	2 stage Cool, 3 stage Heat – Heat Pump 2 stage Cool, 2 stage Heat – Conventional Programmable/Non-Programmable Electronic Auto or Manual changeover Wi-Fi

* Integrated thermostat and humidistat in one

TABLE 7
Humidistat

Thermostat	Predominant Features
8403-060* (1120-445)	Programmable Thermostat (above) with Integral Humidistat
8403-038 (H600A 1014)	Humidistat SPDT
8403-047 (H200 10-21-10)	Dehumidistat – Electronic (range 10% to 90% with adjustable stops, 3.6% differential)

* Integrated thermostat and humidistat in one

TABLE 8
Dehumidification Relay Logic Board

24V Terminal Block Connections		G	Y	3	W1	Outputs from Board		
	Inputs to Board	G	Y	D	W2	G1	TWV	YO
Cooling Mode	Unoccupied	X	X			X		X
Cooling Mode	Occupied	X	X			X		X
Cooling Mode ①	With Dehum	X	X	X		X		X
1st Stage Heating	Unoccupied				X	X		
1st Stage Heating	Occupied				X	X		
1st Stage Heating	With Dehum			X	X	X		
2nd Stage Heating	Unoccupied				X	X		
2nd Stage Heating	Occupied				X	X		
2nd Stage Heating ②	With Dehum			X	X	X		
Dehumidification	Unoccupied			X		③	③	③
Dehumidification	Occupied			X		X	X	X

① Cooling takes precedence over dehumidification. A cooling call cancels dehumidification.
② First stage heating cancels dehumidification.
③ If jumper on RLB is set to "1-2 full-time dehumidification", outputs will energize. This is the factory default setting. If jumper is set to "2-3 occupied dehumidification only", outputs will be off.

Refrigerant Charge

The correct system R-410A charge is shown on the unit rating plate.

Reference Table 9 to validate proper system operation (±2 psig suction, ±5 psig discharge) in cooling mode, not dehumidifation mode. However, it is recommended that if incorrect charge is suspected, the system refrigerant be reclaimed, evacuated and charged to the nameplate charge quantity and type.

The nameplate charge quantity is optimized for thermal performance and efficiency of this self-contained package system.

The system operating pressures in Table 9 are based upon rated airflow across the evaporator during cooling cycle.

Total system charge for these models can be found in Tables 3A and 3B on pages 12 and 13.

TABLE 9
Cooling Pressure Table

Model	Return Air Temperature	Pressure	75°	80°	85°	90°	95°	100°	105°	110°	115°	120°	125°
W24G4D	75° DB 62° WB	Low Side	126.3	127.3	128.4	129.6	130.8	132.2	133.7	135.2	136.9	138.6	140.4
		High Side	301.3	322.1	344.2	367.4	391.9	417.6	444.4	472.5	501.8	532.4	564.1
	80° DB 67° WB	Low Side	135.1	136.2	137.3	138.6	139.9	141.4	143.0	144.6	146.4	148.2	150.2
		High Side	309.0	330.4	353.0	376.8	401.9	428.3	455.8	484.6	514.7	546.0	578.6
	85° DB 72° WB	Low Side	139.8	141.0	142.1	143.5	144.8	146.3	148.0	149.7	151.5	153.4	155.5
		High Side	319.8	342.0	365.4	390.0	416.0	443.3	471.8	501.6	532.7	565.1	598.9
W30G4D	75° DB 62° WB	Low Side	127.0	127.9	128.8	130.0	131.1	132.4	133.8	135.3	136.9	138.7	140.4
		High Side	304.5	325.5	347.5	370.6	394.8	419.9	446.3	473.7	502.0	531.6	562.1
	80° DB 67° WB	Low Side	135.8	136.8	137.8	139.0	140.2	141.6	143.1	144.7	146.4	148.3	150.2
		High Side	312.3	333.8	356.4	380.1	404.9	430.7	457.7	485.8	514.9	545.2	576.5
	85° DB 72° WB	Low Side	140.6	141.6	142.6	143.9	145.1	146.6	148.1	149.8	151.5	153.5	155.5
		High Side	323.2	345.5	368.9	393.4	419.1	445.8	473.7	502.8	532.9	564.3	596.7
W36G4D	75° DB 62° WB	Low Side	126.1	127.2	128.2	129.3	130.5	131.6	133.0	134.3	135.7	137.1	138.6
		High Side	324.8	345.4	367.4	390.5	414.8	440.2	466.9	494.7	523.9	554.1	585.6
	80° DB 67° WB	Low Side	134.9	136.0	137.1	138.3	139.6	140.8	142.2	143.6	145.1	146.6	148.2
		High Side	333.1	354.3	376.8	400.5	425.4	451.5	478.9	507.4	537.3	568.3	600.6
	85° DB 72° WB	Low Side	139.6	140.8	141.9	143.1	144.5	145.7	147.2	148.6	150.2	151.7	153.4
		High Side	344.8	366.7	390.0	414.5	440.3	467.3	495.7	525.2	556.1	588.2	621.6
W42G4D	75° DB 62° WB	Low Side	126.8	127.8	128.8	129.9	130.9	132.0	133.1	134.2	135.3	136.4	137.5
		High Side	318.2	338.8	360.9	384.5	409.7	436.3	464.5	494.1	525.3	558.0	592.2
	80° DB 67° WB	Low Side	135.6	136.7	137.8	138.9	140.0	141.2	142.3	143.5	144.7	145.9	147.1
		High Side	326.4	347.5	370.2	394.4	420.2	447.5	479.4	506.8	538.8	572.3	607.4
	85° DB 72° WB	Low Side	140.3	141.5	142.6	143.8	144.9	146.1	147.3	148.5	149.8	151.0	
		High Side	337.8	359.7	383.2	408.2	434.9	463.2	493.1	524.5	557.7	592.3	
W48G4D	75° DB 62° WB	Low Side	124.0	124.5	125.3	126.1	127.1	128.2	129.4	130.8	132.3	133.9	135.7
		High Side	320.3	341.3	363.6	387.0	411.7	437.7	464.9	493.3	523.0	553.8	586.0
	80° DB 67° WB	Low Side	132.6	133.2	134.0	134.9	135.9	137.1	138.4	139.9	141.5	143.2	145.1
		High Side	328.5	350.1	372.9	396.9	422.3	448.9	476.8	505.9	536.4	568.0	601.0
	85° DB 72° WB	Low Side	137.2	137.9	138.7	139.6	140.7	141.9	143.2	144.8	146.5	148.2	150.2
		High Side	340.0	362.4	386.0	410.8	437.1	464.6	493.5	523.6	555.2	587.9	622.0
W60G4D	75° DB 62° WB	Low Side	124.8	125.9	127.0	128.1	129.2	130.3	131.5	132.7	133.9	135.1	136.3
		High Side	326.7	347.6	369.9	393.7	419.0	445.6	473.8	503.3	534.3	566.8	600.6
	80° DB 67° WB	Low Side	133.5	134.6	135.8	137.0	138.2	139.4	140.6	141.9	143.2	144.5	145.8
		High Side	335.1	356.5	379.4	403.8	429.7	457.0	485.9	516.2	548.0	581.3	616.0
	85° DB 72° WB	Low Side	138.2	139.3	140.6	141.8	143.0	144.3	145.5	146.9	148.2	149.6	
		High Side	346.8	369.0	392.7	417.9	444.7	473.0	502.9	534.3	567.2	601.6	

Low side pressure ± 4 PSIG High side pressure ±10 PSIG

Tables based upon rated CFM (airflow) across the evaporator coil.

If there is any doubt as to correct operating charge being in the system, the charge should be reclaimed, and the system evacuated and recharged to serial plate instruction.